

# MIDDLESEX UNIVERSITY



## SCHOOL OF MEDICINE

### CATALOGUE

1943-1944

WALTHAM

MASSACHUSETTS

BOSTON

## STATEMENT

The Medical Catalogue, published well in advance of the school year to which it applies, contains a record of the faculty of the School of Medicine, and of the courses of instruction; and announcements relative to the calendar, requirements for admission and graduation, fees, examinations, and rules for student conduct.

The provisions of this catalogue are not intended to be taken as a basis for the contractual relationship arising between the University and its students. The purpose of the Officers and Trustees is continuously to improve the methods and standards of instruction, and they reserve to themselves the right and responsibility of altering at any time the curriculum, requirements, teaching personnel, fees, and rules, as circumstances may require, or as they may deem to be to the best interest of the University.

MIDDLESEX UNIVERSITY

CATALOGUE  
OF THE  
SCHOOL OF MEDICINE



1943-1944

WALTHAM

BOSTON

MASSACHUSETTS

## CALENDAR (1943-1944)

1943

March 1 to 6	Monday to Saturday	First installment of tuition due
March 17	Wednesday	First semester begins
May 31 to June 5	Monday to Saturday	Second installment of tuition due
July 12	Monday	Second semester begins
Aug. 30 to Sept. 4	Monday to Saturday	Third installment of tuition due
October 31	Sunday	Commencement Exercises

### RECESS BETWEEN SCHOOL YEARS

November 8 to 13	Monday to Saturday	First installment of tuition due
November 29, 30	Monday and Tuesday	Supplementary examinations
December 1	Wednesday	First semester begins
December 24	Friday	Christmas vacation begins

1944

January 3	Monday	Classes resumed
February 7 to 12	Monday to Saturday	Second installment of tuition due
April 3	Monday	Second semester begins
May 8 to 13	Monday to Saturday	Third installment of tuition due
July 4	Tuesday	Independence Day, a holiday
July 23	Sunday	Commencement Exercises

### RECESS BETWEEN SCHOOL YEARS

August 7 to 12	Monday to Saturday	First installment of tuition due
August 28, 29	Monday and Tuesday	Supplementary examinations
August 30	Wednesday	First semester begins
December 20	Wednesday	First semester ends
December 21	Thursday	Christmas vacation begins

# THE TRUSTEES OF MIDDLESEX UNIVERSITY

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SAMUEL H. WRAGG

FIRST VICE PRESIDENT  
FRANK L. WHIPPLE

SECOND VICE PRESIDENT  
JOHN M. RUSSELL

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HOWARD CHARLES GALE . . . . .	Beverly
ALLAN H. STURGES . . . . .	Boston
FRANK KINGDON . . . . .	New York City
HENRY F. BEAL . . . . .	Waltham
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ERNEST R. CAVERLY . . . . .	Brookline
ROSE F. JANNINI . . . . .	Winthrop
JOHN HALL SMITH . . . . .	Waltham
CHARLES J. O'MALLEY . . . . .	Boston
HAROLD L. MUSGRAVE . . . . .	Revere

## EXECUTIVE COMMITTEE OF THE TRUSTEES

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## OFFICERS OF ADMINISTRATION

DEAN

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ASSISTANT TO THE DEAN

DAVID LYMAN DAVIDSON, Ph.D.

REGISTRAR AND COUNSEL

C. RUGGLES SMITH, A.B., A.M., Litt.B., LL.B.

DIRECTOR OF BUILDINGS AND CAMPUS

JOSEPH I. CHESKIS, Ph.D.

BURSAR

MARJORIE K. FAXON

LIBRARIAN

SIGMUND HIRSCH, Ph.D.

SECRETARY TO THE DEAN

JULIA O'LEARY

SECRETARY TO THE REGISTRAR

ANNETTE BLAIS

## FACULTY OF THE SCHOOL OF MEDICINE

*A date in brackets indicates appointment to present rank; a second date means year of original appointment.*

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### ANATOMY, HISTOLOGY, AND EMBRYOLOGY

- WILLIAM M. KONIKOV *Professor of Anatomy*  
A.B., Harvard University, 1917; M.D., Boston University, 1928  
[1936]
- J. RICHARD WEISSENBERG *Professor of Histology and Embryology*  
M.D., University of Berlin, 1907  
[1940]
- LOUIS BERGMANN *Associate Professor of Anatomy*  
M.D., University of Vienna, 1932  
[1939]
- PETER GRUENWALD *Assistant Professor of Histology*  
M.D., University of Vienna, 1936  
[1942]
- JULIUS RUBIN\* *Assistant Professor of Anatomy*  
M.D., Middlesex University, 1934  
[1939; 1935]
- BERNARD F. MCKERNAN *Instructor in Anatomy*  
A.B., Fordham University, 1931; M.D., Middlesex University, 1939  
[1943]
- IRVING L. BERMAN *Instructor in Anatomy*  
B.S., College of the City of New York, 1935; M.D., Middlesex University, 1940  
[1943]

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### PHYSIOLOGY

- HAROLD M. KAPLAN *Professor of Physiology*  
A.B., Dartmouth College, 1930; PH.D., Harvard University, 1933  
[1937; 1934]
- KARL SINGER *Professor of Clinical Physiology*  
M.D., University of Vienna, 1927  
[1940]
- PAUL L. SANDI *Assistant Professor of Physiology*  
M.D., University of Milan, 1928  
[1942]

\*On leave during military service.

BIOCHEMISTRY

- DAVID L. DAVIDSON *Professor of Biochemistry*  
S.C.B., S.C.M., PH.D., Brown University, 1933, 1934, 1937  
[1938]
- SOLOMON H. GORDON *Associate Professor of Biochemistry*  
B.S., Massachusetts State College, 1925; ED.M., Boston University, 1926  
[1932; 1926]
- BENJAMIN P. HECHT *Assistant Professor of Biochemistry*  
B.S., PH.C., Massachusetts College of Pharmacy, 1936, 1937  
M.S., PH.D., University of Wisconsin, 1939, 1942  
[1940; 1939]

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PHARMACOLOGY

- HANS MAUTNER *Professor of Pharmacology*  
M.D., University of Vienna, 1909  
[1939]
- ALDO LUISADA *Associate Professor of Pharmacology*  
M.D., University of Florence, 1924  
[1939]
- BENJAMIN HECHT *Assistant Professor of Pharmacy*  
B.S., PH.C., Massachusetts College of Pharmacy, 1936, 1937  
M.S., PH.D., University of Wisconsin, 1939, 1942  
[1943; 1939]

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PATHOLOGY, BACTERIOLOGY, AND IMMUNOLOGY

- ERNST E. MATHIAS *Professor of Pathology*  
M.D., University of Koenigsberg, 1912  
[1942]
- FRITZ B. SCHWEINBURG *Professor of Bacteriology and Immunology*  
M.D., University of Vienna, 1908  
[1942]
- KARL SINGER *Professor of Clinical Pathology*  
M.D., University of Vienna, 1927  
[1940]
- I. JACQUES YETWIN *Associate Professor of Parasitology*  
B.S., Rutgers University, 1929; M.S., University of Chicago, 1932  
M.D., Middlesex University, 1940  
[1943; 1940]
- MEYER PERLSTEIN *Assistant Professor of Bacteriology*  
B.S., Columbia University, 1931; M.D., Middlesex University, 1939  
[1941; 1939]
- NATHAN SKORNIK *Assistant Professor of Pathology*  
B.S., New York University, 1933; M.D., Middlesex University, 1940  
[1942; 1940]



## SCHOOL OF MEDICINE

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ROSA KUBIN  
PH.D., University of Vienna, 1931  
[1941]

*Assistant Professor of Clinical Pathology*

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### GENERAL MEDICINE

LEO HESS  
M.D., PH.D., University of Vienna, 1903, 1906  
[1939]

*Professor of Medicine*

ISADORE GREEN  
M.D., Tufts College, 1922  
[1935; 1932]

*Professor of Psychiatry and Neurology*

HANS MAUTNER  
M.D., University of Vienna, 1909  
[1940; 1939]

*Professor of Pediatrics*

C. RUGGLES SMITH  
A.B., LL.B., Harvard University, 1921, 1926  
LITT.B., A.M., Columbia University, 1922, 1923  
[1927]

*Professor of Medical Jurisprudence*

EDWARD J. LEVENSON  
A.B., Harvard University, 1931; M.D., University of Rochester, 1935  
[1938; 1937]

*Associate Professor of Medicine*

SAMUEL KAMBERG\*  
M.D., Tufts College, 1921  
[1938; 1925]

*Associate Professor of Roentgenology*

MARVIN M. GOULD  
M.D., Tulane University, 1914  
[1940; 1939]

*Associate Professor of Tropical Medicine*

T. VINCENT CAMPAGNA  
M.D., Middlesex University, 1923  
[1940; 1923]

*Associate Professor of Therapeutics*

ISRAEL KAHALAS  
M.D., Tufts College, 1930  
[1940; 1937]

*Associate Professor of Medicine*

FRANK B. COLLOTEN  
M.D., Middlesex University, 1916  
[1940]

*Associate Professor of Dermatology*

LOUIS FELDMAN  
M.D., Tufts College, 1919  
[1940; 1935]

*Associate Professor of Physical Therapy*

ANGELO L. MAIETTA\*  
M.D., Middlesex University, 1930  
[1940; 1938]

*Associate Professor of Medicine*

\*On leave during military service.

## MIDDLESEX UNIVERSITY, WALTHAM, MASSACHUSETTS

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- SIEGMUND HIRSCH *Associate Professor of Medical History*  
PH.D., University of Berlin  
[1942]
- ALDO LUISADA *Lecturer in Cardiology*  
M.D., University of Florence, 1924  
[1939]
- KARL SINGER *Lecturer in Hematology*  
M.D., University of Vienna, 1927  
[1940]
- ISRAEL M. KAMENS *Associate Professor of Roentgenology*  
A.B., Harvard University, 1931; M.D., Boston University, 1935  
[1942]
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### GENERAL SURGERY

- AUGUSTUS RILEY *Professor of Genito-Urinary Surgery*  
A.B., Oberlin College, 1903; M.D., Harvard University, 1907  
[1940]
- MARTIN L. MACDONALD *Professor of Surgery*  
M.D., Middlesex University, 1920  
[1939; 1920]
- MYRON A. STRAMMER *Professor of Orthopedic Surgery*  
M.D., Tufts College, 1918  
[1941]
- JOSEF FISCHER *Professor of Otolaryngology*  
M.D., University of Vienna, 1915  
[1938]
- EDWARD D. LEETE\* *Professor of Obstetrics*  
M.D., Jefferson Medical College, 1915  
[1937; 1930]
- THEODORE FISCHER-GALATI *Professor of Ophthalmology*  
M.D., University of Vienna, 1909; M.D., University of Rome, 1913  
[1939]
- HYMAN SHRIER *Associate Professor of Gynecology*  
M.D., Tufts College, 1926  
[1940; 1936]
- OSCAR KARPATI *Assistant Professor of Surgery*  
M.D., Royal Hungarian "Elizabeth" University, 1926  
[1940]

\*On leave during military service.

I. W. JOSSELSOHN

*Assistant Professor of Anesthesia*

M.D., Middlesex University, 1922

[1940; 1928]

JACOB I. ABRAMS

*Assistant Professor of Ophthalmology*

M.D., Boston University, 1928

[1940; 1938]

ROBERT KUHN

*Lecturer in Obstetrics*

LL.D., University of Heidelberg, 1909; M.D., University of Munich, 1919

[1943]

### LABORATORY TECHNICIANS

HARRIET GORDON

FLORENCE LAND

LILY SINGER

ELIZABETH LEAHY

RUTH MOOR

### COMMITTEES OF THE FACULTY

*Admissions:* HAROLD M. KAPLAN, Chairman; DAVID L. DAVIDSON, MARTIN L. MACDONALD, C. RUGGLES SMITH.

*Curriculum:* EDWARD J. LEVENSON, Chairman; DAVID L. DAVIDSON, OSCAR KARPATI, ERNST E. MATHIAS.

*Clinics and Internships:* ISADORE GREEN, Chairman; HARRY R. BOLAN, FRANK COLLOTEN, AUGUSTUS RILEY.

*Library:* WILLIAM M. KONIKOV, Chairman; EDWARD J. LEVENSON, HANS MAUTNER, RICHARD WEISSENBERG, ERNST E. MATHIAS.

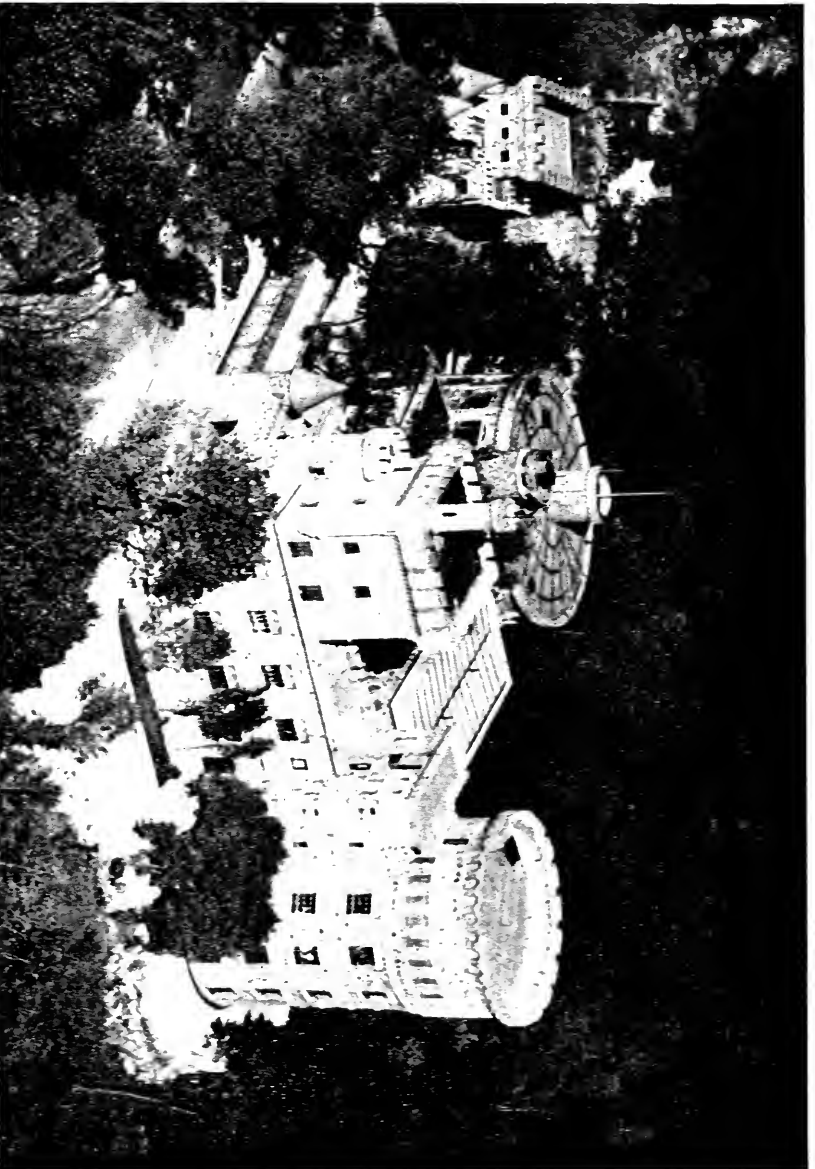
*Student Relations:* DAVID L. DAVIDSON, Chairman; WILLIAM M. KONIKOV, FRITZ SCHWEINBURG.

*Student Health:* MARTIN L. MACDONALD, Chairman; ISADORE GREEN, ALDO LUISADA.  
The President and Dean are ex-officio members of all faculty committees.

CLINICAL CLERKSHIPS

The following hospitals accepted fourth-year students as clinical clerks for the session of 1942-1943:

Allerton Hospital .....	Brookline, Mass.
Beekman Hospital .....	New York, N. Y.
Bessie Burke Memorial Hospital .....	Lawrence, Mass.
Beth David Hospital .....	New York, N. Y.
Beth-El Hospital .....	Brooklyn, N. Y.
Brockton Hospital .....	Brockton, Mass.
Burlington County Hospital .....	Mt. Holly, N. J.
Central Hospital .....	Somerville, Mass.
Chelsea Memorial Hospital .....	Chelsea, Mass.
Doctors Hospital .....	Boston, Mass.
Hale Hospital .....	Haverhill, Mass.
Harbor Hospital .....	Brooklyn, N. Y.
Jewish Memorial Hospital .....	Boston, Mass.
Lutheran Hospital of Manhattan .....	New York, N. Y.
Manhattan General Hospital .....	New York, N. Y.
Middlesex Hospital .....	Cambridge, Mass.
Mother Cabrini Hospital .....	New York, N. Y.
North Hudson Hospital .....	Weehawken, N. J.
Our Lady of Victory Hospital .....	Lackawanna, N. Y.
Parkchester General Hospital .....	New York, N. Y.
Passaic General Hospital .....	Passaic, N. J.
Phaneuf Hospital .....	Brockton, Mass.
Revere General Hospital .....	Revere, Mass.
St. Elizabeth Hospital .....	Elizabeth, N. J.
St. Francis Hospital .....	New York, N. Y.
St. Michael's Hospital .....	Newark, N. J.
The Genesee Hospital .....	Rochester, N. Y.
The Jewish Hospital of Brooklyn .....	Brooklyn, N. Y.
Wesson Memorial Hospital .....	Springfield, Mass.
Whidden Memorial Hospital .....	Everett, Mass.
Woonsocket Hospital .....	Woonsocket, R. I.
Wyckoff Heights Hospital of Brooklyn .....	Brooklyn, N. Y.



THE SCHOOL OF MEDICINE

Aerial view of the medical buildings on the Waltham campus of  
Middlesex University.



### THE BACK BAY BUILDING

Middlesex University devotes this building at 415 Newbury Street, Boston, to the use of the junior and senior medical classes.

### HISTORY

The School of Medicine is the oldest department of Middlesex University. Chartered in 1849 by the Commonwealth of Massachusetts, its first course of instruction was offered in Worcester. After the medical school had been inactive for a period of years, it was reopened in Cambridge in 1914, and shared the use of the building now occupied by the Middlesex Hospital, one of its present affiliates for clinical teaching. As its steady growth made necessary the acquisition of more space, the medical school secured quarters in Boston and finally became established in Waltham, where the erection of its present group of ten buildings was started in 1928.

### GROUNDS AND BUILDINGS

Although the buildings of the medical school were constructed during the past twelve years and expressly designed to house its laboratories, classrooms, offices and library, the outward aspect of the group is that of a towering castle, spreading its massive walls of stone across a rocky hill-top,—a modern replica of a medieval, fortified town. The illusion of antiquity is intensified by the heavy covering of ivy that mantles the field-stone buildings, and clings to their battlements, turrets, and bartizans.

Two stone archways, flanked by red-roofed gate towers, lead into the medical quadrangle. Between the entrance arches extends the Medical Museum building, a long cloistered structure with a unique mosaic ceiling.

Connected by an arch to the museum is the Administration Building, four stories high, surmounted by heavy parapets and a circular watch-tower, and containing the secretarial offices and the record files of the medical school. It adjoins the Library Building, two stories in height, that houses the Medical Library, and two research laboratories. This building connects with the South-East Tower, a round five-story structure, topped by an over-hanging parapet, that contains the four medical lecture halls and the Pent-House Theatre. Each lecture hall is equipped with 110 stationary seats, with folding arms for note-taking; the professor's desk and platform, enclosed by a mortised rail bearing a seating chart, and provided with a separate entrance; blackboards and such other equipment as is needed by the class assigned to the room. Each student has his seat assigned and his name printed on the seating chart. The circular construction of the building affords a maximum of light on all sides. The fifth-story hall is reserved for a dark-room, and is available for any class. It is equipped with a motion-picture projector, a stereoptican, and a microprojector, and contains theatre-type seats.

The broad windows of the Pathology Building, which is connected with the South-East Tower at its second-floor level by an arched bridge, overlook the Charles River, winding through the valley below on its ten-mile course to Boston. The spacious teaching laboratories of the departments of pathology, bacteriology, and histology occupy the entire two floors of this rectangular structure, with its stone buttresses and external staircase. These laboratories are equipped with microtomes, centrifuges, incubators, autoclaves, a frozen-section machine, refrigerators, cabinets for gross specimens and slides, and individual lockers for students' microscopes. Study-benches run along the sides of the rooms, and work-benches with sinks, gas, electricity, and running water along the center.

All of the buildings of the medical teaching group are interconnecting at one or more levels. From the pathology laboratory a stone passage leads to the round physiology laboratory on the second floor of the Anatomy Building. With light on all sides, this laboratory provides ample space for group work by students in the experimental work of their first-year course in physiology.

Directly below is the dissecting room, large enough to hold eighteen tables radiating from the circular center partition that encloses the prospecting room, the brine tanks, the bone room, the vault, and the students' dressing rooms. The circular outer walls are mostly windows, and the inner walls are covered with black-boards and anatomical charts.

The Anatomy Research Laboratory is in a projection of the Anatomy Building, facing the center of the quadrangle. The Anatomy Building is flanked by a round stone tower, three stories high, containing a wide circular staircase and observation chamber. The Norman Tower is the most rugged example of the ancient architectural design that characterizes the medical school group. The merlons and crenelles of its battlement rise high above the round roof of the Anatomy Building, which may be reached by a stone balcony leading from a lower level of the tower. The view from this height embraces all of Waltham and Newton, includes much of Watertown and Cambridge, and extends to the skyline of Boston, where the Custom House Tower, the blacked-out dome of the State House, and the new Court House, are clearly visible.

The Chemistry Building, joined at two levels to the Anatomy Building, is long and narrow. Its ground floor encloses the biochemistry teaching laboratory, and upstairs are the research laboratories and offices of the various department heads. It is connected at an acute angle with another two-story structure, the Premedical Building, that completes the quadrangle and is joined to the entrance archway. A massive stone structure, with heavy parapets and broad windows, this building contains two



rectangular class-rooms, with a seating capacity of 95 each, the office and supply room of the biochemistry department, an animal operating room, a photographic darkroom, and the offices of the Dean and of the Registrar.

Parallel to the Chemistry Building is the Locker Building, which contains a smoking room, lavatories, 500 student lockers, and living quarters for the maintenance staff.

Below the hill on which the medical school buildings are situated, built half underground, is the powerhouse, whose great boilers heat all the buildings on the campus except the dormitory bungalows. This structure still maintains the Norman style in its design and hides its chimney in a tall square stone tower, with parapets on its several setbacks.

The long winding road that leads from street level to the medical group and returns more steeply to the exit drive, traverses almost a hundred acres of colorful campus, past spreading elmshaded lawns, bright flower gardens and rose arbors, through fields of farmland, green with corn and other crops, around placid ponds, by rich pastures, and through shaded woods. On this road are to be found buildings that house other departments of the University;—the glittering new Veterinary School and Animal Hospital, and the green-roofed Small-Animal Clinic, and the brick barns, the stone stable, the aviary, kennels, piggery, poultry yards, and garage of the Animal Husbandry department.

The campus also contains living quarters for staff members and a selected group of students. There are ten newly-erected Cape Cod bungalows, white with blue trim, ranged on opposite sides of a rolling lawn. One cottage is reserved for a faculty family and another for a proctor.

The Back Bay Building of the University, located at 415 Newbury Street in the heart of the professional district of uptown Boston, is devoted exclusively to the use of the two upper classes of the School of Medicine. This three-story yellow brick building contains an auditorium, with a stage and a seating capacity of two hundred; another classroom of equal floor-space, equipped for visual education and microprojection; four smaller classrooms for section conferences; a branch of the Medical Library, devoted to scientific periodicals; laboratories for clinical research; administration offices; a faculty conference room; and lounge and locker rooms for students.

Across the river in Cambridge is located the Middlesex Hospital, which is affiliated for teaching purposes with the School of Medicine. Seating arrangements in its modern surgical amphitheater provide space for large numbers of medical students.

### STUDENT ACCOMMODATIONS

The first student housing unit on the Middlesex University campus, a group of ten colonial bungalows, was completed in 1940. Each student cottage contains four rooms and a bath with shower, and accommodates four students. There are two single bedrooms, one double bedroom, and a study or living room for the joint use of the four occupants.

The bungalows are Cape Cod colonial in design and embody the most modern methods of construction. They are heated by automatic gas furnaces, of the latest type. The dormitory group is conveniently located on the campus within a few minutes' walk of the medical school buildings. The ten bungalows are grouped about a rectangular lawn, transversed by a paved road which leads into the campus from Route 20, the Post Road from Boston to New York.

Medical students may secure rooms in the dormitories for \$140 to \$160 per student for the school year of 33 weeks. The rental is payable in three installments of \$50 each on the date set for the payment of the tuition. Since the number of dormitory rooms available is limited, applications from individual students, or from those who want to share a cottage, should be filed as early as possible. In order for a room to be reserved the application must be accompanied by an advanced payment of \$25, which is refundable only at the discretion of the University.

The University provides the necessary furniture, heat, hot water, electricity, and maid service for the dormitories. Student occupants have to provide themselves with sheets, pillow cases, blankets, linen, towels, and any furnishings in the way of decorations and rugs. In order that the appearance of the cottages may be uniform the University will provide curtains at cost for each student room.

For the convenience of students who are unable to secure accommodations in the University dormitories, a list of approved rooming houses within walking distance of the campus is maintained. Room and board may be secured with private families at an average weekly cost of \$12, and there are a number of conveniently located restaurants.

There is ample parking space on the campus for students who travel by automobile. Those who come to the University from other states are urged to leave their cars at home, because of the wartime restrictions on non-essential driving.

### SCHOLARSHIPS, STUDENT-AID, AND LOANS

Middlesex University has no scholarship endowment, but individual gifts make available each year a limited number of scholarships covering

in full or in part tuition in any department of the University. An annual award to a deserving student is donated by Dr. Hugh Beaton, a medical graduate of Middlesex University, practicing in Texas. Applicants for these scholarships must have very high scholastic standing and must be in actual need of financial assistance. Continuance of the scholarship from one year to another depends upon the recipient's moral, social, and scholastic qualifications. All scholarship applicants must have a personal interview with the President and with the Dean of the School of Medicine.

There are also available a limited number of service scholarships covering the cost of tuition. Recipients of these scholarships must have proper qualifications to serve as laboratory assistants or otherwise.

The United States Commissioner of Education has approved the accelerated program of the School of Medicine for the purpose of the Student War Loans program, and an allotment of over \$24,000 was made to the University for the assistance of its needy medical and veterinary students during the fiscal year ending June 30, 1943. It is expected that Congress will make provision for continued assistance to students in essential fields after the expiration of the present program, which enables professional students within two years of graduation to borrow up to \$500 for tuition and other expenses during a stated period, and to repay the loan at a low interest rate over a period of four years after receiving their degrees.

Middlesex University has participated for several years in the federal student work program of the National Youth Administration. The purpose of this program is to provide employment of a socially useful nature for students who would otherwise be financially unable to continue their education. Students appointed to these positions are assigned to work under the supervision of various faculty members and are paid from \$10.00 to \$25.00 a month by the National Youth Administration. Middlesex University had a quota of 18 federal student aid positions during the school year 1942-1943.

### REQUIREMENTS FOR ADMISSION

The School of Medicine is co-educational, and the course leading to the degree of Doctor of Medicine is open on equal terms to both men and women.

Due to the exigencies of wartime transportation, the requirement that a candidate must appear for a personal interview before acceptance to the medical school may be waived in the case of applicants from outside Massachusetts.

Before the war admission of candidates was generally restricted to those who had been graduated with a bachelor's degree from an approved college and who presented satisfactory credits in specified premedical subjects. For the duration of the present acute shortage of physicians, however, the Committee on Admissions will accept candidates of promise who have completed two full years of approved academic credit, amounting to not less than sixty semester hours, and including satisfactory courses in English, inorganic and organic chemistry, physics, and biology. Present premedical students who appear to possess a proper aptitude for medical study may be accepted for a future entering class, subject to the satisfactory completion of all requirements for admission before the beginning of their medical course.

Candidates for admission are required to make application upon blanks which may be obtained from the school. All questions contained in the application blank must be answered in full, and the applicant must file a recent unmounted photograph. The application must be submitted accompanied by a verification fee of ten dollars. The Committee on Admissions reserves the right to refuse admission to any applicant without stating any reason for its action. Credentials and photographs which are filed by candidates for admission become the property of the university, and are kept permanently in the files.

During the continuance of the wartime accelerated program the School of Medicine will enroll entering classes at intervals of nine months. The standard medical course of four school years of thirty-two weeks each will be given within a period of three calendar years by the elimination of all vacations except Christmas week and a recess between sessions. New classes will be enrolled on December 1, 1943, and on August 30, 1944.

### SELECTIVE SERVICE AND COMMISSIONS

Activity and Occupational Bulletin 33-6, issued by the Selective Service System, permits of the occupational deferment of full-time premedical students who have been unconditionally accepted for future enrolment in

medical school, and who will complete their premedical course by July 1, 1945. Medical students in good standing are eligible for deferment if the medical school certifies that they are competent and give promise of the successful completion of their course and of becoming recognized medical doctors. Internes may be further deferred for a period of hospital training not to exceed one complete year. Registrants in the above categories may be placed in classification 2A by their local draft boards.

The Committee on Admissions acts upon applications as soon as the essential academic transcripts and recommendations have been received, in order that successful candidates can matriculate without delay and become eligible for deferment as students in training for an activity essential to the health, safety, and welfare of the Nation.

Middlesex University does not at present participate in the Army or Navy Training Programs, and its medical students are in attendance on a civilian draft-deferred basis.

Graduates of the School of Medicine can qualify for commissions as first lieutenants in the United States Army Medical Corps Reserve, after completing an internship and being licensed to practice medicine. Over two hundred alumni of the medical school have been commissioned and ordered to active service; a number have already won promotions in the medical corps, and several are now overseas.

#### ADMISSION TO ADVANCED STANDING

Each year there are a number of vacancies in the second, third and fourth year classes available for transfers from other medical schools. Applicants for advanced standing must present evidence of the successful completion of one or more years of instruction in an approved medical school with equal entrance requirements. No credit or advanced standing may be given for partially completed school years, or for years in which an applicant was unsuccessful in passing all the courses of the curriculum. In exceptional cases, however, an applicant who has been in attendance at some other medical school during the first semester of a given year may be admitted to the second semester of the same calendar year at this School.

No candidate for advanced standing will be accepted who has been denied readmission to the medical school previously attended for reasons of conduct or scholarship. All applicants for advanced standing must have been entitled to an honorable dismissal from the medical school previously attended. No advanced standing may be granted on credits from schools of osteopathy, dentistry, or from other than approved medical schools.

A candidate admitted to advanced standing must spend at least one year in the School, completing the regular fourth or last year of study before the degree is conferred. Before admission to such fourth year, the candidate seeking admission to advanced standing must fulfill all the conditions required of candidates for admission to the fourth year who have taken the uninterrupted course in this School.

Students from foreign educational institutions may be accepted after their foreign premedical and medical credentials have been approved and evaluated by some legally constituted authority, such as the Bureau of Qualifying Certificates of the University of the State of New York.

#### ADMISSION AS A SPECIAL STUDENT

Applicants whose qualifications are considered acceptable may be admitted as special students in specific courses of the medical curriculum. Special students, however, will not be accepted as candidates for a degree.

#### ADMISSION TO POST-GRADUATE COURSES

Graduates in medicine may be admitted to post-graduate courses of a didactic and clinical nature, which are offered by the School of Medicine in affiliation with the Middlesex Hospital. Such courses are not part of the curriculum leading to the degree of Doctor of Medicine, but are intended for physicians who are seeking instruction in the specialized fields of the profession.

#### EXAMINATIONS AND PROMOTION

Admission to the School is for one year only, and the Trustees reserve the right to dismiss a student at any time, or to refuse readmission or promotion to any student.

The medical course extends over a period of four school years, and the students are divided into four classes. Promotion from one class to another is based upon the satisfactory completion of the work of each year. A student will not be admitted to the final examinations in any course unless his class record, attendance, and laboratory work in that subject are satisfactory, and all of these elements will be considered in the determination of his final grade. Marks are given in all courses on a percentage basis, and a grade of seventy-five per-cent is required to pass the course.

A student will not be allowed the privilege of final examinations, or be given his final grades in any course, until he has satisfied all of his financial obligations to the School.

The Administrative Officers of the School and members of the Faculty

review the work of the student at the end of the first, second, and third years of the course. It is within the province of the Administrative Officers and of the Faculty to decide whether a student shall be promoted to the next class, shall be permitted to take examinations for the removal of conditions, shall be required to repeat the year's work, or shall be denied further registration in the School by reason of unsatisfactory scholarship.

In order to be promoted a student must have successfully passed all of the examinations in the work of the previous year.

Students who are eligible for re-examination must make written application at least two weeks before the examinations are scheduled, and remit the required fee of five dollars for each examination.

The mere attainment of passing grades does not insure promotion. The continuance in good standing of any student is also contingent upon his faithful adherence to the rules and regulations of the School and of affiliated institutions, as well as his observance in extra-curricular activities of a moral standard appropriate to one aspiring to the medical profession.

Any student who voluntarily withdraws from the School for proper reasons forfeits his standing, but may apply for readmission in a subsequent year. If not too long a time has elapsed, and if changes in the rules of promotion or in the curriculum do not render such an admission impractical, his application should receive favorable consideration.

#### DISCIPLINE AND DISMISSAL

The University reserves the right to dismiss at any time a student whose deportment or scholarship is unsatisfactory, and to refund a proportional part of the current tuition fee he has paid. Admission to the University is in all cases for one year only, and readmission may be denied without explanation.

#### GRADUATION AND DEGREES

Candidates for the degree of *Doctor of Medicine* must possess the following qualifications:

1. The candidate must be at least twenty-one years of age and of good moral character.
2. The candidate must have fulfilled all of the requirements for admission to the School of Medicine; and he must have completed four full years of not less than thirty-two weeks in each year in an approved Medical School, of which one year must be spent in the regular senior class of this School.

3. The candidate must have obtained a passing grade in each subject of the curriculum, and a satisfactory record of laboratory, clinical, and maternity work.

4. The candidate must have filed satisfactory means of permanent identification, including a recent photograph.

5. The candidate must have satisfied all his financial obligations to the School, including the Graduation Fee of twenty-five dollars.

6. The candidate must have satisfied the Faculty and Trustees that he has attained proficiency in Medicine, Surgery, and Obstetrics, and that he has the mental and moral qualifications essential to the successful practice of medicine.

The degree of Doctor of Medicine *cum laude*, or *magna cum laude*, may be given to candidates of unusual scholastic attainment, on recommendation of the Faculty.

#### FEES AND EXPENSES

The cost of operating a medical school is very high. It is the policy of Middlesex University to charge as low a tuition fee as is consistent with the maintenance of proper educational standards.

The requirements of medical education are such that only a limited amount of outside work can be done by a student without seriously endangering his health or scholastic standing. For this reason prospective students are urged to postpone their matriculation until they are reasonably sure of their ability to meet the expenses of at least the first year of the medical course. If a student is obliged to drop out of school before the completion of the four-year course in order to earn sufficient funds for the continuance of his education, he may apply for a leave of absence, and every effort will be made to make a place for him, should he make application for readmission within a reasonable time.

Fees are payable only by postal money order, certified check, express money order, and telegraph order. Remittances must be made by mail, and addressed to Middlesex University, Box 310, Waltham, Massachusetts.

The verification fee of ten dollars is payable by all new students and should accompany the filing of the application blank. This fee is not refundable under any circumstance, since each application involves secretarial work and receives the careful attention of the administrative staff. The verification fee is payable only once, and may be credited to the student's account, should he withdraw his application and then re-apply in a subsequent year.

The matriculation fee of twenty-five dollars is payable by each can-



didate for admission or re-admission to the School, when he is notified that his application has been acted upon favorably by the Committee on Admissions. No place will be reserved in a class until the accepted applicant has paid his matriculation fee. This fee is payable annually and is not refundable. This fee is to reserve a place for the matriculant, and does not constitute part of the tuition.

In addition to the matriculation fee of \$25.00, the tuition for each of the four classes in the medical school is \$450.00, payable in three installments as indicated on the calendar. A deposit of \$75.00, one-half of the first installment of tuition, is required at the time of matriculation of all new students accepted by the medical school, in order that Selective Service boards may be assured of the good faith of the applicant. *This deposit is subject to refund only in case the matriculant is for some reason denied occupational deferment and is inducted before the beginning of the school year, or if he fails to fulfill the requirements for admission and is rejected by the University.*

The tuition fee includes all laboratory charges except breakage, damage, and loss of apparatus. No tuition payment is subject to refund, except in the case of students required to withdraw from school by operation of the Selective Service law, who will be granted a refund for any unearned portion of tuition and a leave of absence until such time as they are able to return to school.

Any student whose installment of indebtedness to the School remains unpaid on the date fixed for final payment is deprived of the privileges of the School until he is reinstated. Reinstatement is obtained only by consent of the Executive Committee, after payment of all indebtedness and a reinstatement fee of ten dollars. This charge of ten dollars is also payable, in the form of a late registration fee, by all students who may be permitted to enroll in the School after the date set for payment of the first installment of the tuition.

The graduation fee of twenty-five dollars is payable by all successful candidates for the degree of Doctor of Medicine, upon notification by the Bursar.

An examination fee of five dollars is charged for the first re-examination in any subject failed. Any subsequent or special examination, except in the case of illness, is subject to a charge of ten dollars.

A student may obtain one transcript of his scholastic record without charge. A clerical fee of one dollar is required for all additional transcripts.

First and second year students are required to possess satisfactory microscopes, fitted with low, high power, and oil-immersion objectives. New instruments are not available during war time, and students are

urged to make every effort to obtain suitable used microscopes. The University will arrange for the sale or rental of as many instruments as possible from its upper-classmen and alumni. Microscope lockers are available, but the University assumes no responsibility for the safety of property stored in any of its buildings.

The cost of text-books and equipment that the first three medical classes were required to have was as follows during the March, 1943, session: first-year class, \$110.00; second-year class, \$85.00; third-year class, \$60.00.

The amount to be charged for books and equipment for the session 1943-1944 will be announced at a later date. Students are required to make a deposit to cover the cost of this material upon notification before the opening of the school year, so that their equipment and books may be purchased for them and delivered during the first days of the session.

The equipment is standard, and includes sphygmomanometers, haemocytometers, haemometers, stethoscopes, and certain other instruments.

#### ATTENDANCE

Attendance during all class and laboratory exercises is required. Students who are absent, for any considerable time, on account of illness, or for other unavoidable reason, must present medical certificates or other satisfactory evidence in justification of their absence. A routine medical examination of each member of the entering class will be made at the beginning of the academic year.

#### MEDICAL LIBRARY

The Library of the School of Medicine is situated on the Waltham campus. It contains a collection of some 4,000 medical volumes, including a large number of standard modern text books. Substantial additions to the Library are being made annually. Current and past copies of the leading medical periodicals and clinical abstracts are on file. The Library is open during the school session, and a Librarian is in charge.

The College Library, with its collections of scientific, academic, and literary books and periodicals, is available at all times to students enrolled in the medical school.

The Boston Medical Library, No. 8 The Fenway, is situated within four blocks of the Back Bay Building, and is open to both the faculty and the medical students. Founded in 1875, it contains the largest collection of medical books and periodicals to be found in New England, including over 160,000 bound volumes, over 100,000 pamphlets and reprints, and

some 900 current periodicals. Students also have free access to the great resources of the Boston Public Library, which is also in the Back Bay section, and to the Waltham Public Library, not far from the medical campus.

### LABORATORIES AND COLLECTIONS

The laboratories of the School of Medicine occupy four buildings on the Waltham campus. They are spacious and unusually well lighted, and are supplied with gas, water, electricity, and refrigeration. There are smaller rooms for special work, apparatus rooms, and departmental offices. The laboratories are well equipped with paraffin ovens, incubators, microtomes, and a full line of glassware, chemicals, and other accessories. There are available a dark room and photographic equipment with microprojection lanterns, motion picture projectors, and photomicrographic apparatus. In the anatomical museum there are assembled and displayed collections of various bones. In the pathological museum preserved specimens are available for the gross study of pathology.

One large class-room, on the fifth floor of the South-East Tower, is reserved for visual education, and is used for the exhibition of scientific motion pictures, lectures illustrated by stereopticon slides, and the study of histological and pathological specimens by microprojection.

The following medical films are among those recently exhibited to the student body:

Fracture of the Skull	Cesarean Section
Pearly Tumor of Cerebellum	Varicose Veins and Ulcers
Spinal Cord Injury	Surgery of the Extremities
Cataract Extraction	Pathology of the Breast
Full Thickness Skin Graft	Uterine Fibroids
Esophageal Diverticulum	Absorbable Sutures
Subtotal Thyroidectomy	Suture Technic
Thyroidectomy	Cancer of the Cervix
Appendectomy	Malaria
Cholecystectomy	Renal and Cardiac Edema
Hernioplasty and Lipectomy	Blood Transfusion
Radical Mastectomy	Conduct of Normal Labor
Peptic Ulcers	Injuries of the Newborn
Hemorrhoidectomy	Episiotomy and Repair
Montgomery-Simpson Suspension	Treatment of Asphyxia Neonatorum
Comparative Physiology of Labor	

### CLINICAL INSTRUCTION

The clinical teaching program of the School of Medicine is conducted through affiliation with a large number of hospitals. Senior medical students are assigned to clinical clerkships at these hospitals, where they obtain practical training in preparation for the year of internship to which they are recommended immediately upon graduation, and for which deferment is granted by the Selective Service System. Clinical preceptors at the affiliated hospitals supervise the training of the students assigned to them, turning in detailed reports to the School each month. A partial list of these hospitals is to be found following the listing of the faculty.

Negotiations are now in progress for the establishment of clinical teaching units in some of the larger hospitals in metropolitan Boston. To supplement the clinical facilities available to the school this year, a number of the students have been assigned as clinical clerks for part of their fourth year to a few hospitals at some distance from the school. Certain members of the hospital staffs have volunteered to act as clinical preceptors and have thus generously cooperated in carrying on the work of the school. Their valuable contribution is herewith gratefully acknowledged.

## COURSES OF INSTRUCTION

## SCHEDULE OF HOURS

The announcement of courses consists of a condensed statement of the general plan of instruction in each department, and a description of the didactic and practical work required during the four-year medical course.

The curriculum in medicine covers approximately 4,000 hours of instruction, and is divided into nine fields:

	No. of Hours
1. Anatomy, including Histology and Embryology . . . . .	640
2. Physiology . . . . .	272
3. Biochemistry . . . . .	256
4. Pharmacology . . . . .	150
5. Pathology, Bacteriology and Immunology . . . . .	610
6. General Medicine, including Pediatrics, Neurology and Psychiatry, Dermatology and Syphilis, and Roentgen- ology . . . . .	1,000
7. General Surgery, including Orthopedic Surgery, Urology, Ophthalmology, Otolaryngology . . . . .	640
8. Obstetrics and Gynecology . . . . .	225
9. Public Health and Preventive Medicine, and Medical Jurisprudence . . . . .	180
10. Electives or Additional Clinics . . . . .	100
Total . . . . .	<hr/> 4,073

## ANATOMY

The Department of Anatomy gives instruction in gross human anatomy, histology, neurology, and embryology. Advanced work is offered for those with adequate preparation.

The department has two large laboratories, one for gross dissection and one for microscopic work. In addition there is a large preparation room for prosecting and museum work, as well as a special laboratory for the histology department. The department has lockers for the dissection coats and a large wash room.

The department has its own library for student reference and many charts, photographs, and drawings available for study. In addition to the above there is a small museum of anatomy preparations, as well as an ample collection of histological, embryological, and neurological slides. A separate projection room equipped for microprojection as well as lantern and motion pictures is shared with other departments.

**GROSS ANATOMY.** — In this course, four to six students are assigned to each body according to the supply available. Daily lectures and a laboratory manual guide the students who all work on the same region at one time. Each student is responsible for the dissection of one half of the body. Each table has its own bone collection, in addition to which bones are loaned to individual students. Several skeletons are available for study in the laboratory and lecture room.

The lectures are intended merely as a guide and supplement to the standard text-books, stressing the practical applications of anatomy in the daily work of physicians and surgeons.

Daily oral examinations are given at the dissection tables by an instructor of the department.

Eighty lectures, one hundred and sixty laboratory hours.

**NEURO-ANATOMY.** — This course is given in the histology laboratory in the second half of the first year, and includes gross and microscopic anatomy of the central nervous system on human material supplemented by sheep brains. The course is correlated with the course in physiology. Each student is responsible for the microscopic anatomy and nervous pathways which are learned from the slide collection.

Sixteen lectures, thirty-two laboratory hours.

**TOPOGRAPHICAL AND SURGICAL ANATOMY.** — This is a fourth year course reviewing gross anatomy with special emphasis on topography and surgical application. Museum specimens and special dissections are used.

Sixteen lectures and demonstrations.

**HISTOLOGY.** — Morphology and Biology of the cell. Histology and functions of the tissues and Microscopic Anatomy of the organs with reference to experimental medicine. Laboratory work includes the study of stained slides of normal human organs and tissues.

**EMBRYOLOGY.** — The fundamental facts of the development of human embryos are presented in lectures illustrated by projection and demonstration of microscopic and macroscopic preparations. Sections of embryos of domestic animals are studied in the laboratory. This course is closely correlated with the lectures and laboratory work in histology.

**HISTOLOGY AND EMBRYOLOGY:** First year, first semester, 80 lectures, 160 laboratory hours.

### PHYSIOLOGY

The lectures are supplemented by the study of textbooks and periodicals, and deal with the physiology of muscle, nerve reflexes, the central nervous system, the autonomic system, the blood vascular system, respiration, digestion, secretion, absorption, metabolism, the sense organs and reproduction. The laboratory emphasizes mammalian experimentation, general technic, gas analysis, and metabolism. First year, second semester: 80 lectures and conferences, 192 laboratory hours.

### BIOCHEMISTRY

A study of the chemical substances and reactions involved in the physiological processes of the human body. The laboratory work includes a study of the chemical constituents of living matter, the chemical properties of carbohydrates, proteins, and fats, aspects of nutrition, the action of digestive enzymes, and the qualitative and quantitative analysis of blood and urine. First year, second semester: 64 lectures and recitations, 192 laboratory hours.

### BACTERIOLOGY AND PUBLIC HEALTH

**BACTERIOLOGY.** — This course consists of a survey of the general features of diseases caused by bacteria and related organisms. The pathogenesis of infectious diseases is emphasized. It consists of lectures, demonstrations, and laboratory instruction of procedures employed in microscopical, cultural, experimental, and immunological diagnosis of infections. The course is designed to familiarize the student with common pathogenic and nonpathogenic bacteria.

**IMMUNOLOGY.** — This course consists of lectures, demonstrations, and laboratory instruction of the application of immunological principles to diagnosis, prevention, and treatment of disease. The principles of immunology, serology and allergy, are considered both theoretically and practically.

**PUBLIC HEALTH.** — The lectures in this course are closely correlated with the laboratory work in bacteriology and immunology, in order to emphasize those aspects of infectious diseases which relate to problems of Public Health, Hygiene, and Preventive Medicine. The communicable diseases are discussed in connection with epidemiology, administrative control, and prevention. Organized public health activities as conducted by state, municipal, and county health agencies, are demonstrated through field trips.

PARASITOLOGY AND TROPICAL MEDICINE. — Animal parasites amongst the protozoa, helminths, and arthropods which are responsible for human diseases, are studied. The biology and physiology are discussed along with the pathological aspects, clinical diagnosis, and treatment of the diseases.

#### PATHOLOGY

GENERAL AND SPECIAL PATHOLOGY. — The course is designed to teach the fundamental principles of abnormal morphology, physiology, and chemistry, and consists of laboratory work, lectures, and demonstrations. The laboratory course in pathologic histology is based upon a selected collection of microscopic slides. Gross pathology is taught with fresh and museum specimens. The physiologic and anatomical changes which occur in cell tissues, organs, and systems are explained in the lectures, and the correlation between clinical and pathological findings are discussed in conferences. The student is trained in observing demonstrations of postmortem and post-operative materials.

#### CLINICAL PATHOLOGICAL CONFERENCES

Case histories are presented and autopsies and clinical findings are compared. Specimens are demonstrated and examined from the standpoint of differential diagnosis and treatment.

#### PHARMACOLOGY

PHARMACOLOGY. — Lectures entailing the study of drugs; including their chemistry and actions in man and the animals. In connection with the effects of the various drugs, emphasis is placed upon their pathological physiology. The clinical applications of drugs are noted. The course includes the effects and importance of hormones and the vitamins. The most important poisons are discussed as to their diagnosis, effects, therapy, detection, and social importance. In the laboratories, the students perform experiments upon the effects of the different remedies in animals; learn the technics of different pharmacological experiments, and observe demonstrations of the more complicated experiments and procedures, as the onkometer experiments or those on the sinus caroticus. The simple chemical experiments on alkaloids, glucosides, and some of the ordinary drugs are performed by the students. Simple methods of detection of poisons are also employed.

#### MEDICINE

Instruction in this department extends over three years of the medical course, and is designed to cover the principles of the practice of medi-



cine and of clinical medicine. It begins in the second year with a discussion of symptomatology and physical diagnosis so presented as to acquaint the student with history taking, physical examination, and the interpretation of the clinical manifestations of disease.

During the third and fourth years of the course emphasis is shifted to the practical methods of clinical diagnosis in hospitals, clinics and dispensaries, where the student, through individual instruction, is taught to apply in practical work the knowledge gained from the classroom and text-books. Selected cases are demonstrated in the hospital amphitheatre. By the sub-division of the Fourth-Year Class into small sections, individual instruction in the various departments of medicine is facilitated, and direct contact with patients made possible.

### CARDIOLOGY

The third year course is taught in 32 lectures, one every week of the two semesters. The course is theoretical and deals with the general technic, with the description of the different heart diseases, and with the treatment of them. Anatomical sketches, x-ray and electro-cardiogram drawings are shown and discussed.

The fourth year course is also taught in 32 lectures, one every week of the two semesters. In each of them a patient with heart disease is shown to the students and diagnosis and treatment of the single case are discussed. Electrocardiograms, x-ray plates are also shown in this course.

### PEDIATRICS

Instruction begins in the third year with a course of lectures, supplemented in the fourth year with clinical instruction and the amphitheatre presentation of cases. The course covers principles of infant feeding and the physiology of nutrition, the normal growth and development of children, as well as the diagnosis and treatment of the diseases of children, including those of a contagious nature. The preventive phase of pediatrics is emphasized.

### ROENTGENOLOGY

This course begins with a consideration of the fundamental principles of physics as applied to radiology and proceeds to a study of the use of the X-ray in diagnosis and treatment. Practical instruction is given in the interpretation of findings on fluoroscopic screen and films. The appearance of normal structures and typical pathologic conditions are demonstrated in the classroom and by clinical observation in the X-ray Depart-

ment of the hospital. Weekly lectures are supplemented by plate-reading and direct hospital training.

### DERMATOLOGY AND SYPHILIS

This course covers the etiology, symptoms, histopathology, diagnosis, and treatment of diseases of the skin, and includes a discussion of the methods of radium and roentgenray therapy. The clinical and laboratory procedures used in the treatment and diagnosis of syphilis are discussed and demonstrated.

### LABORATORY DIAGNOSIS

This course deals with the significance and technique of the practical laboratory procedures which pertain to clinical diagnosis. It consists of lectures, demonstrations, and laboratory instruction in the examination of the blood, urine, sputum, stomach contents, feces, effusions, and spinal fluid.

### NEUROLOGY AND PSYCHIATRY

The course in Neurology begins with a brief review of Neuro-Anatomy, and proceeds to the study of nervous diseases and neurological diagnosis, with special reference to the relations of neuro-pathology and clinical neurology.

In Psychiatry the lectures cover the nature, cause, diagnosis, prognosis, and treatment of the various forms of mental disease. The commitment of the insane is discussed from the point of view of the medical practitioner. Clinical discussion, demonstration, and examination of the various types of mental and nervous disorders is conducted with the co-operation of the members of the staffs of various state hospitals for the insane.

### ENDOCRINOLOGY

Histophysiology of the endocrine glands. Hormones, their physiology and pharmacology. Somato-psychic constitution in relation with endocrinology. Problems in experimental endocrinology. Syndromes and diseases. Endocrinology in its relation to social and preventive medicine.

### MEDICAL JURISPRUDENCE

This course deals with the relationship of medicine and the law, particularly stressing the legal principles which pertain to the practice of medicine, and the legal duties and obligations of a physician. In a series of thirty-two lectures the following subjects are discussed: Medical Licensure and Causes of Revocation, Expert Testimony and the Laws of Evi-

dence, the Contractual Relationship between Physician and Patient, the Legal Obligations of a Physician, Civil and Criminal Malpractice, False Representations, Insanity as a Defense and as a Disability, Commitment, Crimes with a Medical Aspect, Industrial Accidents and Actions of Tort, Medical Legal Aspects of Birth and Death.

### SURGERY

Instruction in this department begins in the second year with a systematic course dealing with the principles of surgery. In the third and fourth years consideration is given to diseases of the bones and joints, tumors, hernia, and anesthesia. Lectures and assigned study are supplemented by clinical and amphitheatre demonstrations covering asepsis, antisepsis, sterilization of the operating room materials, pre-operative treatment of patients, surgery of wounds, treatment of fractures and dislocations, and the usual surgical operations of the head, neck, thorax and abdomen. Operative surgery on the cadaver, included in the course in applied anatomy, is correlated with instruction in this department.

Students have an opportunity of assisting in private operating rooms, and of receiving practical instruction in minor surgery in outpatient clinics.

### ORTHOPEDIC SURGERY

The effects of infection, traumatism, habitual overstrain, and functional insufficiency upon joint structures are studied in this course, emphasis being placed upon pathology and upon the physical examination of normal and pathological joints. Treatment of diseases and deformities of the spine and extremities is discussed, and the application of casts, splints, and other methods of cure demonstrated.

The didactic lectures are supplemented by the clinical study of the more common orthopedic subjects, including deformities from infantile paralysis, arthritis, tuberculosis of the joints, osteomyelitis, and congenital deformities.

### OPHTHALMOLOGY

Starting with lectures in the third year, instruction in this course continues in the fourth-year clinics, with the class divided into teaching sections. Each student received individual instruction in the use of the ophthalmoscope. External diseases of the eye and anomalies of the ocular muscles are covered in a practical way. The elements of the fitting of glasses are demonstrated and discussed.

### OTOLOGY AND RHINOLARYNGOLOGY

The theoretical aspects of the ear, nose, and throat diseases are considered in the third year, through lectures and demonstrations. The anatomical basis is covered by studying a large variety of gross specimens and slides. The physiological aspects are illustrated by demonstration of the experimental methods commonly employed.

In the fourth year, there is hospital instruction in examination, diagnosis, and treatment. The student learns the use of the otoscope, various methods of testing the hearing and labyrinthine function, and is given an opportunity to observe the more important operative procedures.

### OBSTETRICS

Instruction in this department is given during the second, third, and fourth years, and includes lectures, recitations, manikin exercises, laboratory courses, and practical work and observation in the amphitheatre, delivery room, and outpatient department.

### GYNECOLOGY

Instruction is given by didactic lectures in the third year, and by clinical observation and demonstration in the fourth, in the general field of gynecological diseases, and the student is familiarized with the cause, diagnosis, and treatment of the more significant pathological conditions within the pelvis.

### MEDICAL ETHICS AND HISTORY

The purpose of this course is to outline the progress of medical science from the days of the alchemist and the midwife to modern times, emphasizing the biographies of those who have most significantly contributed to the rise of modern medical methods. Instruction is paralleled by assigned text-book study. The last few lectures deal with the ethical standards of the profession of medicine, and with the specific problems in ethics that arise in the practice of medicine.

## DEGREES

At Commencement Exercises, held at New England Mutual Hall, Boston, on the nineteenth day of February, 1943, the degree of Doctor of Medicine was conferred on the following candidates:

Joseph Anthony Ambrosino .....	New York, N. Y.
B.S., New York University	
Matthew Arnao .....	Brooklyn, N. Y.
B.S., St. John's University	
Joseph Lawrence Bell .....	Brooklyn, N. Y.
A.B., New York University	
Neil Bernstein .....	Brooklyn, N. Y.
B.S., New York University	
Raymond Capers .....	Boston, Mass.
Middlesex University	
Sheldon Morton Caplan .....	Chester, Pa.
A.B., University of Pennsylvania	
Manuel Coggan .....	Malden, Mass.
A.B., University of Michigan	
Herbert Cutler .....	Boston, Mass.
Middlesex University	
Harold Francis Dallas .....	New York, N. Y.
B.S., Fordham University	
Wilfred Daniel David .....	Newport, R. I.
B.S., Rhode Island State College	
Saul Paul Davis .....	Boston, Mass.
B.S., Boston College	
Moses Jacob Entin .....	Boston, Mass.
B.S., Massachusetts State College	
Eugene Michael Ferraro .....	New York, N. Y.
B.S., Middlesex University	
Domenic Saverio Fiorentino .....	Boston, Mass.
A.B., Boston College	
Joseph Rowland Fontanetta .....	Brooklyn, N. Y.
A.B., New York University	
Sol Martin Gold, <i>cum laude</i> .....	Chester, Pa.
A.B., A.M., University of Pennsylvania	
Morton Jerome Greene, <i>cum laude</i> .....	New York, N. Y.
A.B., New York University	
Samuel Sidney Greenstein .....	Chelsea, Mass.
A.B., Johns Hopkins University	
Amos James Guarente .....	Medford, Mass.
B.S., Boston College	

Samuel Benjamin Henken .....	Meriden, Conn.
Muhlenberg College	
Norman Herman .....	Winthrop, Mass.
Middlesex University	
Abraham Charles Hoffman .....	Knoxville, Tenn.
A.B., M.S., University of Tennessee	
Raymond Augustine Horan .....	Bridgeport, Conn.
Notre Dame University	
Philip Anthony Ierardi .....	Lynn, Mass.
B.S., Tufts College	
Robert Louis Immordino .....	Trenton, N. J.
B.S., M.S., Villanova College	
John Joseph Ingrassia .....	Brooklyn, N. Y.
B.S., Long Island University	
Eli Israel Jacobs .....	Brooklyn, N. Y.
B.S., University of Arkansas	
Leonard Allan Johnson .....	Carver, Minn.
B.S., Middlesex University	
Leon George Kamras .....	Rantoul, Ill.
A.B., New York University	
Herman Robert Kass .....	Brooklyn, N. Y.
A.B., New York University	
Maurice Irving Kershner .....	Burlington, Vt.
B.S., University of Vermont	
Francis Albert Kincus, Jr. ....	Middleboro, Mass.
B.S., Middlesex University	
Michael Max Klein .....	Brooklyn, N. Y.
Long Island University	
Henry Maurice Kleinman .....	Brooklyn, N. Y.
B.S., George Washington University	
Milton Leonard Kobrosky .....	Springfield, Mass.
B.S., Trinity College	
Allen Norman Koplin .....	New York, N. Y.
A.B., New York University	
I. Edward Krinsky .....	New York, N. Y.
B.S., Long Island University	
Lawrence Kvitka .....	Sierra Madre, Calif.
University of Detroit	
Maynard Lender .....	Boston, Mass.
B.S., Middlesex University	
Lester Irving Leonard .....	Newark, N. J.
Middlesex University	
Stanley Spence Levin .....	New York, N. Y.
A.B., West Virginia University	
John Salvatore Miceli .....	New York, N. Y.
A.B., New York University	

# SCHOOL OF MEDICINE

Stephen Robert Minor	Worcester, Mass.
A.B., Holy Cross College	
Arthur Sumner Newman	Boston, Mass.
Middlesex University	
Sidney Ronald Orenstein	New York, N. Y.
B.S., New York University	
Max Irving Packer	New York, N. Y.
A.B., New York University	
Daniel Norman Rosenberg	Brooklyn, N. Y.
B.S., College of the City of New York	
Joseph Rosenberg	Fitchburg, Mass.
Middlesex University	
Harold Rosenhaus	Brooklyn, N. Y.
A.B., New York University	
Albert Seymour Rothseid	Newark, N. J.
A.B., Lafayette College	
Saul Scheff, <i>cum laude</i>	Boston, Mass.
B.S., University of Chicago	
Shepard Miles Schwartz	Boston, Mass.
Middlesex University	
Michael Shechtman	New York, N. Y.
A.B., New York University	
Seymour Shenfeld	New York, N. Y.
A.B., University of Louisville	
Albert Wayne Shub	Lynn, Mass.
Philadelphia College of Pharmacy and Science	
Harold Sobel	Brooklyn, N. Y.
A.B., New York University	
Alfred Leonard Solow	Everett, Mass.
Middlesex University	
Haskell Sterling	Boston, Mass.
Middlesex University	
Lawrence Strauss	Corona, N. Y.
B.S., Columbia University	
John Henry Tiedemann	Jersey City, N. J.
University of Alabama	
Anthony Joseph Tocco	Yonkers, N. Y.
Fordham University	
Luis Antonio Vallarino	Panama City, Panama
George Washington University	
Anthony Samuel Valvo	Rome, N. Y.
B.S., Notre Dame University	
José Ramon Varela	Pese Herrera, Panama
Tulane University	
Sheldon Robert Watsky	Mt. Vernon, N. Y.
A.B., New York University	

William Weingarten .....	New York, N. Y.
New York University	
Jess Bernard Weiss .....	Mt. Vernon, N. Y.
A.B., University of Alabama	
Imre James Weitzner .....	New York, N. Y.
A.B., New York University	
Samuel Eli White .....	Malden, Mass.
B.S., Massachusetts Institute of Technology	
Berthold Zoffer .....	New York, N. Y.
B.S., New York University	



STUDENTS 1943

Candidates for the Degree of Doctor of Medicine

FOURTH-YEAR CLASS

Erich Georg Atlschul .....	New York, N. Y.
University of Vienna	
Albert Herman Arbetter .....	Boston, Mass.
Middlesex University	
Morris Baxter Asnis .....	Brooklyn, N. Y.
B.S., Brooklyn, College of Pharmacy	
David Paul Ausubel .....	Brooklyn, N. Y.
A.B., University of Pennsylvania	
M.A., Columbia University	
Frederick Babad .....	New York, N. Y.
University of Vienna	
Stanley Melvin Baum .....	Brooklyn, N. Y.
B.S., Long Island University	
Murray Berkowitz .....	Brooklyn, N. Y.
A.B., New York University	
David Berman .....	West Hempstead, N. Y.
A.B., Columbia University	
Israel Jacob Bernstein .....	Brooklyn, N. Y.
B.S., College of the City of New York	
Ernest Beroz .....	Chelsea, Mass.
Middlesex University	
Samuel Blacher .....	Brockton, Mass
A.B., Boston University	
John Theodore Branciforte .....	Portland, Me.
A.B., University of Alabama	
Paul Bratman .....	Brooklyn, N. Y.
A.B., New York University	
George Gerald Breitowich .....	Hillside, N. J.
A.B., Lafayette College	
Joseph Constant Calitri .....	Lawrence, Mass.
B.S., Boston University	
Stanley Len Chin .....	Boston, Mass.
Middlesex University	
Bernard Chromow .....	New York, N. Y.
B.S., Columbia University	
Irving Cohen .....	New York, N. Y.
B.S., College of the City of New York	
Philip Cohen .....	Brooklyn, N. Y.
A.B., New York University	

Barnet Cooper .....	Brooklyn, N. Y.
University of West Virginia	
Thomas Peter DePalo .....	White River Jct., Vt.
B.S., University of Vermont	
Enoch Victor Deutsch .....	Brooklyn, N. Y.
A.B., New York University	
Maurice Dichek .....	New York, N. Y.
B.S., University of Arkansas	
Jack Dreyfus .....	Quincy, Mass.
Middlesex University	
Joseph Edward Dreyfus .....	Boston, Mass.
Middlesex University	
Leo Fahnrich .....	Brooklyn, N. Y.
A.B., New York University	
Elliot Finer .....	Boston, Mass.
Middlesex University	
Leonard Freed .....	Brooklyn, N. Y.
A.B., Brooklyn College	
Norman Albert Geshlider .....	Brooklyn, N. Y.
B.S., University of Arkansas	
Julian S. Gewertz .....	New York, N. Y.
A.B., New York University	
Anthony Charles Giangreco .....	Boston, Mass.
A.B., Boston College	
Louis Francis Gitlin .....	Jamaica, N. Y.
B.S., Rensselaer Polytechnic Institute	
Arnold Paul Gluckstern .....	New York, N. Y.
University of Vienna	
Sidney John Glueck .....	Philadelphia, Pa.
A.B., University of Pennsylvania	
Benjamin Goldstein .....	Boston, Mass.
B.S., The College of William and Mary	
Clifton Allen Goodwin .....	Whitman, Mass.
Middlesex University	
Saul James Grosberg .....	Brooklyn, N. Y.
A.B., University of Kansas	
Isadore Gross .....	Philadelphia, Pa.
A.B., Temple University	
Edward Joseph Handy .....	Boston, Mass.
A.B., Boston College	
Benjamin Lawrence Harrison .....	Brooklyn, N. Y.
New York University	
Willard Monroe Hausman .....	Lehigh, Pa.
B.S., Muhlenberg College	
M.S., Pennsylvania State College	

# SCHOOL OF MEDICINE

---

Murray Hoffstein .....	New York, N. Y.
A.B., New York University	
Milton Hollander .....	Brooklyn, N. Y.
B.B.A., St. John's University	
Ira Murray Israel .....	Brooklyn, N. Y.
A.B., University of Pennsylvania	
Nathan Kalischer .....	New York, N. Y.
University of Vienna	
Irving Louis Kaplan .....	Brooklyn, N. Y.
A.B., West Virginia University	
Sidney Victor Kassels .....	Boston, Mass.
Middlesex University	
Abe Aaron Kaufman .....	New Orleans, La.
A.B., University of Tennessee	
Julius Selig Kaufman .....	Brooklyn, N. Y.
A.B., University of Arkansas	
Eli Hermon Keshishian .....	Waltham, Mass.
Ph.G., B.S., Massachusetts College of Pharmacy	
Jack Kilstein .....	Brooklyn, N. Y.
A.B., New York University	
Raoul Kloogman .....	New York, N. Y.
University of Vienna	
Otto Knoller .....	New York, N. Y.
University of Vienna	
Maurice Krauss .....	New York, N. Y.
A.B., New York University	
Stanley Edwin Mortimer Landy .....	Ridgefield, Conn.
B.S., Yale University	
Marvin Lane .....	New Haven, Conn.
A.B., Yale University	
Charles LaVerdi, Jr. ....	New York, N. Y.
B.S., Fordham University	
Jerome Jerry Leff .....	Brooklyn, N. Y.
B.S., Ohio University	
M.S., New York University	
Harry Harvey Levine .....	Brooklyn, N. Y.
A.B., Brooklyn College	
William Levine .....	New York, N. Y.
B.S., College of the City of New York	
Edward Robert Levitz .....	New Haven, Conn.
A.B., University of Wisconsin	
Milton Lowenthal .....	New York, N. Y.
B.S., New York University	
Morris Mahl .....	Brooklyn, N. Y.
B.S., Columbia University	

Anthony Martin Maiella .....	Everett, Mass.
A.B., Boston College	
Philip Joseph Marco .....	Boston, Mass.
A.B., Boston College	
Alfred Leonard Marcus .....	Malden, Mass.
Middlesex University	
Sherwood Marnoy .....	Chelsea, Mass.
Middlesex University	
Oskar Merker .....	New York, N. Y.
University of Vienna	
Hyman Irwin Miller .....	Brooklyn, N. Y.
B.S., Long Island University	
Achille Anthony Monaco .....	New Kensington, Pa.,
B.S., Central State Teachers College	
Rudolf Esra Nobel .....	Ann Arbor, Mich.
University of Basel	
Paul Pheneas Norman .....	Malden, Mass.
A.B., Clark University	
Louis Robert Orenstein .....	New York, N. Y.
A.B., New York University	
Alfred Pelzig .....	New York, N. Y.
A.B., New York University	
Eli Perchuk .....	Brooklyn, N. Y.
A.B., New York University	
Peter Charles Perris .....	Boston, Mass.
Middlesex University	
Robert Milton Phillips .....	Boston, Mass.
A.B., Boston College	
Nathaniel Posner .....	Brooklyn, N. Y.
A.B., Brooklyn College	
Morris Rappaport .....	Ellenville, N. Y.
A.B., M.S., University of Michigan	
Abraham Raskob .....	Brooklyn, N. Y.
B.S., College of the City of New York	
Joseph Edward Risoli .....	New York, N. Y.
A.B., West Virginia University	
Alexander Sidney Rogers .....	Brooklyn, N. Y.
A.B., University of Louisville	
Sydney Walter Rosen .....	Everett, Mass.
B.S., Middlesex University	
Stanley Jacob Rosoff .....	Brooklyn, N. Y.
B.S., New York University	
Rosario Rotolo .....	Brooklyn, N. Y.
B.S., Long Island University	
Herbert Rumerman .....	Arlington, Va.
B.S., George Washington University	

## SCHOOL OF MEDICINE

---

Vincent Joseph Russo	New York, N. Y.
Ph.G., B.S., Fordham University	
Felix Schell	Elmhurst, N. Y.
University of Vienna	
Arthur Frederick Schiff	Haverhill, Mass.
A.B., Harvard University	
Samuel Schlifka	Jamaica, N. Y.
Ohio University	
Irving John Selikoff	Port Chester, N. Y.
B.S., Columbia University	
Monroe Elliott Shack	Newark, N. J.
B.S., Muhlenberg College	
David Nathan Shulman	Revere, Mass.
Indiana University	
Louis Siegel	New York, N. Y.
B.S., College of the City of New York	
Stanley Edwin Slivkin	Boston, Mass.
A.B., Harvard University	
Daniel David Sokol	Revere, Mass.
A.B., Indiana University	
Maurice Tacktil	New York, N. Y.
Baylor University	
Joseph William Tandatnick	Brooklyn, N. Y.
B.S., Columbia University	
Fred Ulysses Tate	New York, N. Y.
B.S., College of the City of New York	
Hans Tauber	New York, N. Y.
University of Vienna	
Anthony Ralph Tortora	Brooklyn, N. Y.
A.B., Washington University	
Melvin Victor Warhaftig	Kearney, N. J.
A.B., New York University	
Morris Warnoff	Brooklyn, N. Y.
A.B., New York University	
Melvin Anderson Wein	Jamaica, N. Y.
B.S., Bucknell University	
William Quitman Wolfson	Brooklyn, N. Y.
B.S., M.A., Harvard University	

### THIRD-YEAR CLASS

Simon Peter Abrahams	Brooklyn, N. Y.
B.S., College of the City of New York	
Jack Addes	Brooklyn, N. Y.
A.B., New York University	
Joseph Beller	Brooklyn, N. Y.
A.B., New York University	

George Young Benvie .....	Salt Point, N. Y.
B.S., Manhattan College	
Harry Aaron Birnbaum .....	Brooklyn, N. Y.
A.B., New York University	
Max Bleicher .....	New York, N. Y.
B.S., New York University	
Valentine Bloch .....	Union City, N. J.
A.B., Johns Hopkins University	
Allan Ira Bloom .....	Brooklyn, N. Y.
A.B., University of North Carolina	
Alexander Herbert Bluestone .....	Woodridge, N. Y.
A.B., New York University	
Morton David Brilliant .....	Baltimore, Md.
A.B., Johns Hopkins University	
Salvatore John Capozzoli .....	Brooklyn, N. Y.
B.S., Long Island University	
Benson Salem Charif .....	Boston, Mass.
A.B., Harvard University	
Jacob Joseph Cinamon .....	Portland, Me.
A.B., Bowdoin College	
Irving Cooper .....	Boston, Mass.
A.B., Harvard University	
Lionel Dichter .....	New York, N. Y.
A.B., New York University	
Maurice Paul Elkind .....	Brooklyn, N. Y.
A.B., Brooklyn College	
David Ernstoff .....	Brooklyn, N. Y.
B.S., New York University	
Emanuel Flichtenfeld .....	New York, N. Y.
A.B., New York University	
Vincent James Frallicciardi .....	Boston, Mass.
University of Rome	
Joseph Thomas Gallo .....	Troy, N. Y.
B.S., Siena College	
Donald David Goldberg .....	New York, N. Y.
B.S., Tulane University	
Joseph Goldman .....	Medford, Mass.
B.S., Boston University	
Haskell Grossman .....	Brooklyn, N. Y.
A.B., New York University	
Lawrence Haselkorn .....	New York, N. Y.
B.S., College of the City of New York	
Kenneth Elun Ho .....	Honolulu, T. H.
A.B., University of Wisconsin	
Carlo Amedeo Ippolito .....	New York, N. Y.
B.S., College of the City of New York	

# SCHOOL OF MEDICINE

---

Marion William Johnson .....	Cashocton, Ohio
A.B., Muskingum College	
Harry Allen Kotcher .....	Brooklyn, N. Y.
A.B., New York University	
Herbert Henry Leventhal .....	Boston, Mass.
A.B., Harvard University	
Earl Levitt .....	Brooklyn, N. Y.
A.B., University of Alabama	
William Henry Lyons .....	Rogersville, Tenn.
B.S., Davidson College	
John Paul Mahoney .....	Stoneham, Mass.
B.S., Middlesex University	
Jack William Milhauser .....	Brooklyn, N. Y.
B.S., St. John's University	
Sidney Moldin .....	Youngstown, Ohio
B.S., Ohio University	
Sydney Natelson .....	Brooklyn, N. Y.
B.S., College of the City of New York	
M.A., New York University	
Ribelle Nesto .....	Boston, Mass.
Royal Scientific Lyceum, Italy	
Seymour Milford Nichter .....	Newark, N. J.
A.B., Upsala College	
Maurice Abraham Pleskow .....	Buffalo, N. Y.
A.B., University of Buffalo	
William Gordon Podolsky .....	Baltimore, Md
University of Maryland	
Philip Pross .....	Passaic, N. J.
A.B., Cornell University	
Bernard Ross .....	Brooklyn, N. Y.
New York University	
George Augustus Ryan .....	Lowell, Mass.
A.B., St. Anselm's College	
Abraham Myron Sackler .....	Brooklyn, N. Y.
B.S., New York University	
Mortimer David Sackler .....	New York, N. Y.
B.S., New York University	
Raymond Raphael Sackler .....	Brooklyn, N. Y.
B.S., New York University	
Louis Salhanick .....	Fall River, Mass.
A.B., Colby College	
Howard Schneider .....	Yonkers, N. Y.
B.S., University of Maryland	
Irving Schwartzberg .....	Brooklyn, N. Y.
B.S., University of Arkansas	

Jack Soiefer .....	Brooklyn, N. Y.
A.B., Brooklyn College	
Samuel Switkes .....	Brooklyn, N. Y.
A.B., Columbia University	
Gerald Nyles Turtletaub .....	Brooklyn, N. Y.
A.B., Lafayette College	
Michael Louis Virgilio .....	Brooklyn, N. Y.
B.S., Columbia University	
Hyman Waldman .....	Boston, Mass.
A.B., Harvard University	
Herbert Gordon Weinstein .....	Boston, Mass.
A.B., Boston College	
Marcus Branch Wilkes, Jr. ....	Laurinburg, N. C.
A.B., Erskine College	
Ernest Milton Wittenberg .....	Jersey City, N. J.
A.B., New York University	

## SECOND-YEAR CLASS

Bernard Alper .....	Brooklyn, N. Y.
B.S., Long Island University	
Meyer Asa Alpert .....	New York, N. Y.
College of the City of New York	
Ernest Dominic Basuino .....	Everett, Mass.
B.S., Boston University	
Robert Becker .....	Haverhill, Mass.
B.S., University of New Hampshire	
Leo Paul Benecchi .....	Revere, Mass.
A.B., Boston College	
Robert Lawrence Berger .....	Brooklyn, N. Y.
B.S., Columbia University	
Harold Arthur Bergner .....	Jersey City, N. J.
Long Island University	
Seymour Norman Blackman .....	Brooklyn, N. Y.
B.S., Columbia University	
George Jay Breitbart .....	New York, N. Y.
A.B., New York University	
Nathaniel Perley Danoff .....	Malden, Mass.
A.B., Dartmouth College	
Irwin Stanley Danzig .....	New York, N. Y.
B.S., College of the City of New York	
M.A., Columbia University	
Edward Herbert Davis .....	Sunnyside, N. Y.
A.B., New York University	
Gideon Drimer .....	Brooklyn, N. Y.
B.S., Long Island University	



# SCHOOL OF MEDICINE

---

Louis Eisenberg .....	Brooklyn, N. Y.
A.B., New York University	
Joseph Eisenstein .....	Brooklyn, N. Y.
A.B., Brooklyn College	
Meyer Charles Fagelman .....	Boston, Mass.
B.S., Boston University	
Leonard Fine .....	Brooklyn, N. Y.
B.S., Long Island University	
Sumner George Fredd .....	Boston, Mass.
B.S., University of Chicago	
Charles Paul Freeman .....	Brooklyn, N. Y.
A.B., University of Texas	
Charles Daniel Fucci, Jr. ....	Jersey City, N. J.
A.B., Texas Christian University	
Saul Cyril Futterman .....	Passaic, N. J.
A.B., New York University	
David Jacob Glassman .....	Brooklyn, N. Y.
B.S., Long Island University	
Joseph Goldman .....	Malden, Mass.
B.S., Massachusetts State College	
Joseph Goodgold .....	Brooklyn, N. Y.
A.B., Brooklyn College	
Maxwell Marston Gould .....	Philadelphia, Pa.
B.S., Philadelphia College of Pharmacy and Science	
Morris Greenberg .....	New York, N. Y.
Dalhousie University	
Stanley Harold Greenwald .....	New York, N. Y.
B.S., Columbia University	
Harry Bernard Gurland .....	Garfield, N. J.
A.B., New York University	
Jerome Robert Harris .....	Long Beach, N. Y.
B.S., University of Michigan	
Frank Andrew Hayden .....	Lawrence, Mass.
B.S., Boston College	
Solomon Michael Herman .....	New York, N. Y.
B.S., College of the City of New York	
Abraham Isaac Hochberger .....	New York, N. Y.
B.S., College of the City of New York	
Leo Hochman .....	Chelsea, Mass.
B.S., Boston College	
William Daniel Holder, Jr. ....	Chicago, Ill.
A.B., Lane College	
Milton Holtzman .....	Brooklyn, N. Y.
B.S., University of Vermont	
Harold Horwitz .....	Boston, Mass.
B.S., University of Michigan	

Morris Martin Hyde .....	Boston, Mass.
A.B., New York University	
Sidney Lloyd Kafka .....	Sharon, Mass.
A.B., New York University	
Benjamin Lewis Karasik .....	Brooklyn, N. Y.
A.B., Brooklyn College	
Aaron Kelman .....	Brooklyn, N. Y.
B.S., College of the City of New York	
Daniel Kindler .....	Passaic, N. J.
B.S., University of Maryland	
Elliot Korim .....	Chelsea, Mass.
A.B., Harvard University	
Sheldon Kotkin .....	Brooklyn, N. Y.
A.B., New York University	
Louis Joseph Kuc .....	Boston, Mass.
A.B., Boston College	
Edwin Kushner .....	Brooklyn, N. Y.
B.S., Long Island University	
Martin William Lebenstein .....	New York, N. Y.
B.S., Guilford College	
Benjamin Douglass Lecher .....	Brooklyn, N. Y.
B.S., University of Arkansas	
Lawrence Alfred Lerner .....	Brooklyn, N. Y.
A.B., University of North Carolina	
Irvin Levitz .....	Youngstown, Ohio
A.B., Ohio State University	
Ralph Monash Lilienfeld .....	New York, N. Y.
A.B., New York University	
Edward Liss .....	New York, N. Y.
B.S., University of Michigan	
Marvin Mailman .....	Brooklyn, N. Y.
A.B., New York University	
Francis Joseph Martellotto .....	Astoria, N. Y.
B.S., Fordham University	
Bernard Melkon .....	Orange, N. J.
Ph.G., Temple University	
Ph.C., B.S., M.S., Philadelphia College of Pharmacy and Science	
Alex Morrison .....	Buffalo, N. Y.
A.B., University of Buffalo	
John Thomas Panebianco .....	New York, N. Y.
B.S., Fordham University	
John William Pillion .....	North Andover, Mass.
B.S., Villanova College	
M.S., Boston College	



### MIDDLESEX REACHES TO THE SKY

The Watch Tower on the Administration Building on Middlesex University's hill-top campus is the loftiest structure in Waltham. To the right are laboratories and the five-story class-room building of the School of Medicine.



### THE AUDITORIUM

The Back Bay Building of Middlesex University contains this auditorium which is used for medical lectures and convocations.

# SCHOOL OF MEDICINE

John Ernest Pritz .....	New York, N. Y.
B.S., Long Island University	
D.D.S., Columbia University	
Alvin Abraham Rappaport .....	Brooklyn, N. Y.
A.B., New York University	
Milton Paul Reiser .....	Boston, Mass.
B.S., University of Vermont	
Edward Ritter .....	Georgetown, Mass.
B.S., Boston College	
Jules Rosen .....	Brooklyn, N. Y.
Brooklyn College	
David Lawrence Rosenberg .....	New York, N. Y.
A.B., College of the City of New York	
William Abraham Sausmer .....	Hicksville, N. Y.
A.B., Allegheny College	
Isak Hersch Schapira .....	New Haven, Conn.
University of Vienna	
Joseph Schepis .....	Brooklyn, N. Y.
B.S., College of the City of New York	
Arnold Mortimer Schosheim .....	Long Island City, N. Y.
B.S., New York University	
Seymour Schwalben .....	Brooklyn, N. Y.
B.S., College of the City of New York	
Carl Marx Silver .....	Malden, Mass.
B.S., University of New Hampshire	
Malcolm Richard Silverman .....	Cambridge, Mass.
B.S., Middlesex University	
Stanton Sirkin .....	New Britain, Conn.
B.S., University of Vermont	
Jack Slobodkin .....	Boston, Mass.
B.S., Massachusetts College of Pharmacy	
Stanley Stark .....	Brooklyn, N. Y.
A.B., University of Wisconsin	
Abraham Swartz .....	Boston, Mass.
B.S., University of Vermont	
Helen Mina Udinsky .....	Passaic, N. J.
A.B., New York University	
Jerome Weinstein .....	Brooklyn, N. Y.
B.S., Franklin and Marshall College	
Herbert Vinik Weiss .....	Brooklyn, N. Y.
A.B., New York University	
Robert Moore Wotton .....	New York, N. Y.
A.B., M.A., Columbia University	
Sydney Zeitler .....	Malden, Mass.
B.S., Massachusetts State College	

# MIDDLESEX UNIVERSITY, WALTHAM, MASSACHUSETTS

---

Barry Zimman .....	Lynn, Mass.
A.B., Bowdoin College	
Saul Zucker .....	New York, N. Y.
B.S., College of the City of New York	
B.S., Columbia University	

## FIRST-YEAR CLASS

Harry Aisicovitz .....	Brooklyn, N. Y.
B.S., Long Island University	
Moe Altchek .....	New York, N. Y.
B.S., Queens College	
Herman David Barest .....	New York, N. Y.
College of the City of New York	
Paul Ronald Behrens .....	New York, N. Y.
B.S., College of the City of New York	
Stanley Milton Belcher .....	Boston, Mass.
Massachusetts State College	
Julius Belford .....	Brooklyn, N. Y.
A.B., Brooklyn, College	
B.S., Long Island University	
Morris Bernstein .....	Baltimore, Md.
A.B., Johns Hopkins University	
Robert Ullman Bernstein .....	New Haven, Conn.
B.S., Yale University	
Donald Merrill Bethe .....	Medford, Mass.
Tufts College	
Eli Birer .....	Hempstead, N. Y.
A.B., Johns Hopkins University	
Hyman Leon Bloom .....	Boston, Mass.
B.S., University of Michigan	
Harvey Jules Bluestone .....	New York, N. Y.
B.S., Columbia University	
Theodore Thomas Blumberg .....	Philadelphia, Pa.
A.B., Temple University	
Morris Samuel Boruchman .....	Brooklyn, N. Y.
Brooklyn College	
Michael Anthony Bucceri .....	Long Island City, N. Y.
College of the City of New York	
Jerome David Burken .....	Jersey City, N. J.
A.B., University of Michigan	
Arnold Bernard Canter .....	New York, N. Y.
A.B., University of Virginia	
Aurelius Cusumano .....	New York, N. Y.
B.S., College of the City of New York	
Robert Charles Davis .....	Passaic, N. J.
Lafayette College	

## SCHOOL OF MEDICINE

---

Nicola DiBella .....	Boston, Mass.
Boston University .....	
Jeanette Dian DiDio .....	Jackson Heights, N. Y.
A.B., New York University .....	
Edmund DiLello .....	Jackson Heights, N. Y.
Columbia University .....	
Joseph Vincent DiMaio .....	New York, N. Y.
B.S., Long Island University .....	
Louis Dozoretz .....	New York, N. Y.
A.B., New York University .....	
Seymour Dunn .....	Brooklyn, N. Y.
B.S., Long Island University .....	
Jerome Aaron Ehrlich .....	New York, N. Y.
A.B., Lafayette College .....	
Channing Elfond Eluto .....	Manchester, N. H.
A.B., St. Anselm's College .....	
Morton Gerson Farber .....	Brooklyn, N. Y.
A.B., New York University .....	
Leon Ralph Feldman .....	Brooklyn, N. Y.
B.S., Long Island University .....	
Jerome Morris Fien .....	New Britain, Conn.
A.B., Johns Hopkins University .....	
Herbert David Fishgal .....	Boston, Mass.
Massachusetts State College .....	
Bertram Joseph Frankel .....	Bridgeport, Conn.
B.S., University of Maryland .....	
Sol Freedman .....	Boston, Mass.
Middlesex University .....	
Gerald Freiman .....	New York, N. Y.
A.B., New York University .....	
Samuel Landsberger Gittler .....	New York, N. Y.
Harvard University .....	
Stewart Edward Goldblatt .....	Schenectady, N. Y.
A.B., Union College .....	
James Jacob Goodman .....	Boston, Mass.
A.B., Boston University .....	
Samuel Greenberg .....	Portland, Maine
A.B., University of Michigan .....	
Tullio Frank Guglielmo .....	Brooklyn, N. Y.
B.S., St. John's University .....	
Frank Rudolph Hopf .....	New York, N. Y.
B.S., Purdue University .....	
William Philip Jacobs .....	Trenton, N. J.
A.B., Lafayette College .....	
Irwin Robert Jacobson .....	Pawtucket, R. I.
A.B., Brown University .....	

# MIDDLESEX UNIVERSITY, WALTHAM, MASSACHUSETTS

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Alexander Jodidio .....	New York, N. Y.
A.B., New York University	
Yale Bernard Joseph .....	North Bergen, N. J.
A.B., New York University	
Lawrence Aaron Kamer .....	New York, N. Y.
B.S., College of the City of New York	
Morton Kaplan .....	Brooklyn, N. Y.
B.S., St. John's University	
Louis Kassler .....	Boston, Mass.
A.B., Boston College	
Leon Saul Kind .....	Winthrop, Mass.
Harvard University	
Anthony Leonard LaMarca .....	Brooklyn, N. Y.
B.S., Long Island University	
Wilfred Lansman .....	Astoria, N. Y.
A.B., New York University	
Romeo Trent Laviano .....	Woodside N. Y.
A.B., University of Virginia	
Martin Leff .....	Brooklyn, N. Y.
B.S., University of Michigan	
Abraham Leon .....	Long Island City, N. Y.
B.S., Columbia University	
Frederick Melvin Liebman .....	New York, N. Y.
A.B., New York University	
Morris London .....	Malden, Mass.
Harvard University	
Marshal Merkin .....	Hartford, Conn.
A.B., University of Connecticut	
Nathaniel Bernard Messinger .....	Brooklyn, N. Y.
B.S., University of Michigan	
Arthur Eugene Mirkinson .....	Brooklyn, N. Y.
A.B., New York University	
John Henry Moriarty .....	Methuen, Mass.
B.S., Tufts College	
Selig Nachatsky .....	Brooklyn, N. Y.
Brooklyn College	
Alvin Sidney Natanson .....	Boston, Mass.
B.S., Tufts College	
Henry Nemorofsky .....	Manville, N. J.
B.S., Long Island University	
Mason Blinn Noah, Jr. ....	New York, N. Y.
B.S., Randolph-Macon College	
William Hedley Norris .....	Westfield, Mass.
Columbia University	
Kenneth Arthur Petretti .....	New York, N. Y.
B.S., Fordham University	



## SCHOOL OF MEDICINE

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Peter Anthony Piecewicz .....	Maynard, Mass.
B.S., Tufts College	
Harold Eustace Pierce .....	New Bedford, Mass.
A.B., Harvard College	
Edward Alexander Plevack .....	Boston, Mass.
A.B., St. Anselm's College	
Lord Cecil Rhodes .....	Norfolk, Virginia
B.S., Shaw University	
Melville Gordon Rosen .....	Brooklyn, N. Y.
Tulane University	
Robert Rosenblum .....	Malba Heights, N. Y.
B.S., College of the City of New York	
Eugene Jack Rosenfeld .....	Brooklyn, N. Y.
B.S., College of the City of New York	
Albert Onofrio Rossi .....	Corona, N. Y.
A.B., Columbia University	
Myron Saline .....	New York, N. Y.
A.B., New York University	
Philip Samet .....	New York, N. Y.
B.S., New York University	
Vincent Fortunato Sarnataro .....	Brooklyn, N. Y.
A.B., New York University	
Oreste John Satriale .....	New York, N. Y.
B.S., Fordham University	
Ronald Pasqual Savino .....	Brooklyn, N. Y.
B.S., St. John's University	
M.S., Fordham University	
Mortimer Leon Scheinhorn .....	Brooklyn, N. Y.
B.S., New York University	
Joseph Harvey Seigal .....	Providence, R. I.
A.B., Brown University	
David Shapiro .....	Brooklyn, N. Y.
A.B., New York University	
M.S., Northwestern University	
Adella Jessie Smith .....	Portsmouth, N. H.
B.S., University of New Hampshire	
Murray Sokol .....	New York, N. Y.
A.B., New York University	
Oscar Sokolsky .....	Boston, Mass.
Middlesex University	
Melvin Lloyd Sommer .....	Woodhaven, N. Y.
B.S., Bucknell University	
Bernard Hyman Stavis .....	Malden, Mass.
University of Southern California	
Robert Streisfeld .....	New York, N. Y.
B.S., College of the City of New York	

Herman Joseph Sugarman .....	Providence, R. I.
A.B., Brown University	
Leo Wolf Tannenbaum .....	Boston, Mass.
B.S., Massachusetts State College	
M.S., Montana State College	
Frank Teller .....	Brooklyn, N. Y.
B.S., Long Island University	
Michael Tisbe .....	New York, N. Y.
B.S., St. John's University	
Patrick William Valicenti .....	Jackson Heights, N. Y.
St. John's University	
Mortimer Samuel Weinstein .....	Brooklyn, N. Y.
B.S., Tulane University	
Mortimer Lester Welkowitz .....	New York, N. Y.
A.B., Cornell University	
Harvey Wiener .....	Brooklyn, N. Y.
New York University	
Elliot Witkind .....	Brooklyn, N. Y.
Emory University	
William Wolgin .....	Melrose Park, Pa.
University of Pennsylvania	
Ben Martin Zweifler .....	Brooklyn, N. Y.
College of the City of New York	

## DISTRIBUTION BY COLLEGES

(Since some students attended more than one college in completing their preparation for admission to medical school, the number in this list will be greater than the total enrollment.)

Alabama, University of	2	Louisville, University of	2
Allegheny College	1	Manhattan College	1
Arkansas, University of	6	Maryland, University of	4
Basel, University of	1	Massachusetts College of Pharmacy	2
Baylor University	2	Massachusetts State College	10
Boston College	14	Michigan, University of	11
Boston University	11	Middlebury College	1
Bowdoin College	2	Middlesex University	18
Brooklyn College	20	Montana State College	1
Brown University	3	Muhlenberg College	1
Bucknell University	2	Muskingum College	1
Buffalo, University of	2	New Hampshire, University of	3
California, University of	1	New Jersey College for Women	1
Central State College	1	New York University	85
Chicago, University of	1	North Carolina, University of	3
Clark University	2	Northwestern University	1
Colby College	1	Ohio State University	2
College of the City of New York	34	Ohio University	2
College of William and Mary	1	<b>Pennsylvania State College</b>	1
Columbia University	22	Pennsylvania, University of	5
Connecticut, University of	1	Philadelphia College of Pharmacy and	
Cornell University	3	Science	2
Dalhousie University	3	Pittsburgh, University of	2
Dartmouth College	1	Purdue University	1
Davidson College	1	Queens College	1
Emory University	1	Randolph Macon College	1
Erskine College	1	Rensselaer Polytechnic Institute	1
Fordham University	8	Rome, University of	1
Franklin and Marshall College	1	Royal Scientific Lyceum, Italy	1
George Washington University	2	St. Anselm's College	3
Guilford College	1	St. John's University	7
Harvard University	12	Shaw University	1
Illinois, University of	1	Siena College	1
Indiana University	1	Southern California, University of	1
Johns Hopkins University	5	Temple University	5
Kansas, University of	1	Tennessee, University of	1
Lafayette College	5	Texas Christian University	1
Lane College	1	Texas, University of	2
Long Island University	25	Tufts College	5

Tulane University	3	Virginia, University of	2
Union College	1	Washington University	1
Upsala College	1	West Virginia University	3
Vermont, University of	7	Wisconsin, University of	5
Vienna, University of	10	Yale University	3
Villanova College	1		

### GEOGRAPHICAL DISTRIBUTION OF STUDENTS

Connecticut	9	New York	194
Illinois	1	North Carolina	1
Louisiana	1	Ohio	3
Maine	3	Pennsylvania	7
Maryland	3	Rhode Island	3
Massachusetts	88	Tennessee	1
Michigan	1	Virginia	2
New Hampshire	2	Vermont	1
New Jersey	19	Hawaii	1

### SUMMARY

#### CANDIDATES FOR THE DEGREE OF DOCTOR OF MEDICINE

Senior Class	105	Number of colleges represented	88
Junior Class	56	Number of college graduates	282
Sophomore Class	81	Number of non-graduates	58
Freshman Class	98		
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	340		





## GIFTS AND ENDOWMENT

Middlesex University is authorized by the Massachusetts Legislature to receive and hold donations, legacies, and bequests of real and personal property to an extent not to exceed five million dollars, and to use such property or the income therefrom for its general educational purposes.

The School of Medicine is now in immediate need of substantial endowment funds. The Trustees will be glad to receive specific gifts of books, equipment, or material for the use of any department of the University; and would be very grateful for any donation to the endowment of the University.

Bequests may be made in the following form:

I give to the Trustees of Middlesex University, an educational institution incorporated under the laws of the Commonwealth of Massachusetts, the sum of ..... dollars, to be applied to the general purposes of the University.

# MIDDLESEX UNIVERSITY

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JUNIOR COLLEGE  
Preprofessional Courses, Arts and Sciences



COLLEGE OF ARTS AND SCIENCES  
A.B. and B.S. Degrees



SCHOOL OF MEDICINE  
M.D. Degree



SCHOOL OF VETERINARY MEDICINE  
D.V.M. Degree

BOSTON and WALTHAM — MASSACHUSETTS